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California Striped Bass: A Species Contested for the Prey It Ingested

Abstract: In February, the FGC opted not to pursue a proposal — developed by DFG in close coordination with NOAA Fisheries — to liberalize the bag and size limits in an effort to reduce the abundance of striped bass as one of many efforts intended to improve the populations of listed fish on which striped bass prey. Though part of a settlement agreement, the proposal was simply the latest in almost 25 years of efforts to address the threat of striped bass predation to Winter- and Spring-run Chinook salmon, Central Valley steelhead, Central Coast steelhead, South/Central Coast steelhead, Central Coast Coho salmon, delta smelt, longfin smelt, and tidewater goby. The proposal was supported by a Staff Report, and the Staff Report summarized the status and trends of listed fishes, the status and trends of striped bass, striped bass predation on listed fishes, and the striped bass fishery. While acknowledging uncertainty about the extent and impacts of striped bass predation, the Department concluded that the populations of each of the listed fish have declined and some are at perilously low levels. Although striped bass abundance has declined in recent decades, the population remains substantial. Studies of striped bass predation show each of the listed species constitute a relatively small part of the striped bass diet, and although the actual level of striped bass predation on these species is unknown and likely unknowable, the enormous volume of fish (estimated at up to 110 million pounds annually) consumed by striped bass and the widespread distribution of striped bass within the geographic range of the listed species indicate the impact of striped bass predation on the listed species could be substantial. The recreational fishery for striped bass is very popular, and many anglers will harvest substantially more striped bass if they are allowed to keep smaller fish.

Statement of Relevance: A more in-depth understanding of the relation between prey consumption and prey density can further our understanding of the effects of striped bass predation on ESA listed fish. Continued efforts to collect mark-recapture data — coupled with perhaps future diet studies — will provide valuable quantitative metrics.